

VERNER · LIIPFERT
BERNHARD · McPHERSON & HAND
CHARTERED

DOCKET FILE COPY ORIGINAL

901 - 15TH STREET, N.W.
WASHINGTON, D.C. 20005-2301
(202) 371-6000
FAX: (202) 371-6279

WRITER'S DIRECT DIAL
(202) 371-6206

RECEIVED

NOV 15 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

November 15, 1999

BY HAND

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
12th Street Lobby
TWA-325
Washington, D.C. 20554

**Re: Reply Comments of Thomson Consumer Electronics, Inc.
 ET Docket No. 99-254**

Dear Ms. Salas:

Enclosed for filing please find the original and nine (9) copies of the Reply Comments of Thomson Consumer Electronics, Inc. in the above-referenced docket.

Please stamp and return to this office with the courier the enclosed extra copy of this filing designated for that purpose. Please direct any questions that you may have to the undersigned.

Respectfully submitted,

Lawrence R. Sidman

Lawrence R. Sidman

Enclosures

No. of Copies rec'd
List ABCDE

019

■ WASHINGTON, DC ■ HOUSTON ■ AUSTIN
■ HONOLULU ■ LAS VEGAS ■ MCLEAN ■ MIAMI

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

NOV 15 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Closed Captioning Requirements for Digital Television Receivers

ET Docket No. 99-254

**REPLY COMMENTS OF
THOMSON CONSUMER ELECTRONICS, INC.**

David H. Arland
Director, Government and
Public Relations, Americas
THOMSON CONSUMER ELECTRONICS, INC.
P.O. Box 1976, INH-430
Indianapolis, IN 46206-1976
(317) 587-4832

Lawrence R. Sidman, Esq.
Sara W. Morris
VERNER, LIIPFERT, BERNHARD,
MCPHERSON & HAND, CHARTERED
901 15th Street, N.W., Suite 700
Washington, D.C. 20005
(202) 371-6206

Counsel for Thomson Consumer
Electronics, Inc.

November 15, 1999

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

RECEIVED
NOV 15 1999
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Closed Captioning Requirements for
Digital Television Receivers

)
)
)
)
)
)
)

ET Docket No. 99-254

**REPLY COMMENTS OF
THOMSON CONSUMER ELECTRONICS, INC.**

I. INTRODUCTION AND SUMMARY.

Thomson Consumer Electronics, Inc. ("Thomson") respectfully submits these reply comments in the above-captioned Notice of Proposed Rulemaking ("*NPRM*")^{1/} to amend Part 15 of the Commission's rules to adopt technical standards for the display of closed captions on digital television ("DTV") receivers, and to require the inclusion of closed captioning decoder circuitry in DTV receivers pursuant to its obligations under the Telecommunications Decoder Circuitry Act of 1990 ("TDCA").^{2/}

The record in this proceeding reveals, above all, a sincere desire on the part of all entities to make the advanced capabilities of digital closed captioning available to consumers, particularly those with disabilities, as quickly as possible. While the goal of implementing digital closed captioning is one that should be sought vigorously, however, it also must be done

^{1/} *In the Matter of Closed Captioning Requirements for Digital Television Receivers*, ET Docket No. 99-254, Notice of Proposed Rulemaking, FCC 99-180 (released July 15, 1999) ("*NPRM*").

^{2/} Pub. L. No. 101-431, 104 Stat. 960 (1990) (codified at 47 U.S.C. §§ 303(u), 330(b)).

correctly. After all, consumers investing in DTV receivers who have a specific need for digital closed captioning services will best be served by a process that ensures that receivers and captioning providers work together to ensure these services meet consumer's high expectations for quality and reliability.

To that end, Thomson urges the Commission to incorporate by reference into its rules only the baseline requirements contained in Section 9 of EIA-708,^{3/} and provide manufacturers with flexibility sufficient to allow for the incorporation, on a competitive basis, of the more advanced features of the full standard.

Thomson's recommendation that the Commission make its rules effective at least 24 months after their adoption is supported by the vast majority of commenters. Such a deadline will enable manufacturers to integrate EIA-708 closed captioning capability into their DTV products without unnecessarily disrupting important other DTV-related work, including efforts to bring DTV costs down, as well as allow closed captioning encoder manufacturers to design, manufacture and deploy – and broadcasters and cable operators to install – new software and hardware. The Commission should allow cable and consumer electronics manufacturers to resolve outstanding compatibility concerns before it adopts any rules in this proceeding.

The majority of parties commenting on the subject agree that the Commission's closed captioning requirements should apply according to a DTV receiver's screen height, lest consumers possibly experience unacceptable distortions of captioned text that make it unreadable.

The record reflects general consensus on the need to adopt only minimal standards for

^{3/} As discussed in its initial comments, EIA-708-A has been updated to EIA-708-B. These comments refer to the updated standard, but employ instead the more generic term, "EIA-708."

non-display devices designed principally to receive DTV signals. Thomson urges the Commission not to require set-top converter boxes or separate tuners to convert digital closed captioning data for display in analog form in the absence of data formatted to EIA-608, as such a requirement would impose enormous costs on manufacturers.

Finally, federal mandates requiring DTV receivers to process all PSIP data or to rely exclusively on PSIP data for V-chip program blocking are unnecessary.

II. THE BASELINE CAPABILITIES AVAILABLE THROUGH THE IMPLEMENTATION OF SECTION 9 OF EIA-708 WILL GREATLY IMPROVE CONSUMERS' CLOSED CAPTIONING EXPERIENCE AND WILL FACILITATE MANUFACTURERS' INCORPORATION OF MORE ADVANCED CLOSED CAPTIONING FEATURES ON A COMPETITIVE BASIS.

The baseline approach to digital closed captioning, advocated by Thomson and others,^{4/} and under which the Commission, as it has proposed, would mandate the implementation by manufacturers of only Section 9 of EIA-708, will provide consumers with a greatly enhanced closed captioning experience and provide manufacturers with an appropriate pathway to introducing the more advanced features of the full EIA-708 standard on a competitive basis.

For example, one of the most striking improvements viewers will experience with baseline digital closed captioning (and one fully supported by Section 9 EIA-708) will be the ability to provide consumers with multiple "windows" of text. Whereas today text appears in a single window across the bottom or top portion of a screen, captions designed to Section 9 of EIA-708 will allow viewers to see as many as four text windows, each with continuously updated information, enabling the hearing-impaired viewer to much more easily follow complex

^{4/} See Comments of the Consumer Electronics Association ("CEA," formerly "CEMA") at 5, and Comments of Toshiba America Consumer Products ("Toshiba") at 1.

dialogue. In addition, viewers also will see a variety of seven text colors (white, black, red, green, blue, yellow, magenta and cyan), in addition to solid or flashing text. Thus the claims of some that the Commission's proposed adoption of Section 9 would result in consumers' losing functionality (vis-a-vis what is currently possible under EIA-608 closed captioning) are not true. Baseline digital closed captioning will greatly enhance viewers' captioning experience, assuming the digital closed captioning information is properly distributed by broadcasters and cable operators.

In addition to providing consumers with enhanced closed captioning features, however, the adoption of a baseline standard based on Section 9 of EIA-708 will provide a technical foundation upon which manufacturers, in response to marketplace demand, can build into their DTV products the more advanced features made possible by the full EIA standard.

Moreover, a requirement that manufacturers adhere to the full EIA standard, particularly under the Commission's proposed one-year deadline, assumes that test signal, software and encoders also capable of supporting the full standard are or soon will be available. As Toshiba correctly notes, such is not the case; in fact, for that reason, *inter alia*, a mandate of the full EIA standard could actually delay the availability of even basic EIA-708 captioning.^{5/}

By proposing to adopt only the baseline requirements of Section 9 of EIA-708, and by encouraging manufacturers to introduce voluntarily the advanced closed captioning capabilities of the full EIA standard, the Commission will help to create a regulatory environment for DTV products that fosters greater consumer choice, both in terms of functionality and cost. Indeed, consumers have come to expect that they will be able to choose among a variety of television

^{5/} See Comments of Toshiba at 1.

receivers to suit a variety of needs – whether it be the purchase of a high-end, large screen receiver for the family room; or a smaller, less expensive and more lightly featured receiver for a kitchen or workshop. Thomson is building a digital product line to span the range of consumer needs and price points, both to make the transition to DTV more affordable to consumers, and to ensure that consumers are not forced to pay for features they don't want or need. For the Commission to require all DTV receivers to support all of the advanced features possible under the entire EIA-708 standard would be like requiring consumers to pay for “First Class” when all they really need and want is “Coach.” The Commission should incorporate by reference into its rules only Section 9 of EIA-708, and allow consumers and the free market to drive further innovations.^{6/}

III. THOMSON'S PROPOSED 24-MONTH EFFECTIVE DATE IS SUFFICIENT TO FULFILL THE COMMISSION'S GOAL OF MAKING DIGITAL CLOSED CAPTIONING AVAILABLE TO CONSUMERS. CABLE COMPATIBILITY CONCERNS SHOULD BE ADDRESSED BEFORE THE COMMISSION ADOPTS RULES IN THIS PROCEEDING.

a. The Record Supports the Commission's Adoption of a More Reasonable Effective Date for Its Rules in This Proceeding.

The record reveals a strong consensus among commenters – particularly those experienced in the development and introduction of new digital television technologies – that the Commission should provide DTV receiver manufacturers with at least 24 months to commence

^{6/} Similarly, and for the same reasons, the Commission should refrain from additional operational and design requirements (such as those advocated by the National Association of the Deaf and the Consumer Action Network (“NAD/CAM”)). See Comments of NAD/CAM at 10-12. The ability to uniquely design its products' features, including remote control design and mute functionality, goes to the heart of a manufacturer's ability to compete in the marketplace. The availability of such features is a decision best made by consumers and manufacturers, not the government.

production of digital closed captioning-capable equipment.^{7/} As Toshiba correctly notes, manufacturers have a “finite amount of engineering resources, which are already. . .strain[ed].”^{8/} Indeed, the priority that manufacturers, particularly Thomson, have placed on efforts to offer consumers the broadest variety of DTV products at rapidly lower prices cannot be overstated. A compressed deadline (i.e., one at odds with manufacturers’ 18-24 month design and production cycle) will effectively halt this work, delaying both the introduction of new and less expensive DTV products to consumers and, possibly the availability of cable-ready DTVs. In short, the benefits of the Commission’s affording manufacturers minimally sufficient time to introduce digital closed caption-capable equipment far outweighs the costs of a shorter deadline.

Moreover, while these factors alone militate the need for the Commission to allow at least 24 months before its rules take effect, they are further bolstered by the need for DTV manufacturers and broadcasters to obtain real-world experience with digital closed captioning before these services are introduced to consumers – a fact recognized by both broadcasters and CE manufacturers.^{9/} A requirement that forces manufacturers to commence product production without the benefit of complete field tests using such “real world” data would put consumers at risk of purchasing DTVs with closed captioning technology that is potentially less than fully functional. For this reason, Thomson urges the Commission to not alter, as some have suggested,^{10/} its rules with respect to the 8- and 10-year transition schedules requiring closed

^{7/} See Comments of CEA at 13, Comments of Toshiba at 3, Comments of General Instrument Corporation (“GI”) at 14, Comments of The National Cable Television Association (“NCTA”) at 4, and Comments of Home Box Office (“HBO”) at 6.

^{8/} Comments of Toshiba at 1.

^{9/} See Comments of NAB at 10; Comments of Toshiba at 3.

^{10/} See, e.g., Comments of HBO at 7.

captioning of “new” and “pre-rule” digital programming, respectively.^{11/}

b. Cable Compatibility Concerns Should Be Resolved Prior to the Adoption of the Commission’s Digital Closed Captioning Rules.

Several entities raise concerns about the compatibility of EIA-708 closed captioning with cable systems.^{12/} Indeed, NCTA and GI claim that the use of EIA-708 would result in the obsolescence of deployed digital cable encoders and set-top boxes.^{13/} Thomson recognizes that the benefits made possible by EIA-708 closed captioning will be greatly undermined if these services are not fully accessible by cable consumers. For that reason, Thomson believes the Commission should allow the cable and consumer electronics industries to resolve DTV closed captioning compatibility issues before it adopts rules in this proceeding.^{14/}

IV. APPLYING THE COMMISSION’S RULES TO DTV RECEIVERS ACCORDING TO THE RECEIVER’S VERTICAL SCREEN HEIGHT.

In its initial comments, Thomson urged the Commission to apply its digital closed captioning rules according to a DTV receiver’s vertical height, not its diagonal measurement or screen area. The record supports this recommendation.^{15/}

^{11/} See *Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility*, MM Docket No. 95-176, Report and Order, 13 FCC Rcd 3272 (1998); *Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility*, MM Docket No. 95-176, Order on Reconsideration, 13 FCC Rcd 19973 (1998). See also 47 C.F.R. § 79.1(a)(5)-(6).

^{12/} See Comments of NCTA at 5, Comments of GI at 5, and Comments of Toshiba at 3.

^{13/} Comments of NCTA at 5 and Comments of GI at 5.

^{14/} However, it is critical that any debate concerning technical standards for receivers to include digital closed captioning capability be conducted under the formal auspices of a recognized standards-setting body with experience in these matters, specifically EIA/CEA. This would include not only work regarding cable compatibility with EIA-708, but also the consideration of any “alternative” standards (See Comments of NAB at 9).

^{15/} See Comments of CEA at 5-7; and Comments of Toshiba at 1. (Both CEA and Toshiba echo Thomson’s recommendation that the Commission adopt a standard requiring that devices with a vertical height of 7.8 inches or

Specifically, Thomson reiterates CEA's warning that, due to the screen shape differential between analog and digital TV screens, the application of the current "13 inches diagonal" standard in the DTV context could result in greatly distorted, if not unreadable, closed captioned text and an unacceptable viewing experience for the viewer. Specifically, CEA states:

If the 13 inches or greater standard applied to analog receivers is applied to DTV receivers, the shorter relative vertical size on the DTV receiver. . . will cause the display of closed captioned text to take up significant vertical space on the screen, interfering with the picture, or to be significantly smaller than was intended..."^{16/}

To avoid such a scenario, Thomson again urges the Commission to adopt a standard more appropriate to the digital television environment, requiring that digital television receivers with screens measuring 7.8 inches vertically include closed captioning capability in accordance with the TDCA and the Commission's rules.

V. THE RECORD SUPPORTS THE ADOPTION OF ONLY MINIMUM CLOSED CAPTIONING REQUIREMENTS FOR NON-DISPLAY DEVICES.

While several commenters echo Thomson's view that the Commission may lack statutory authority to require closed captioning capability in non-display devices,^{17/} there appears general agreement that some minimum requirements, applied narrowly to devices designed principally for the receipt of DTV signals (such as set-top converter boxes and separate tuners^{18/}), would facilitate the goals of the Commission and Congress to make closed captioning services as

greater include closed captioning capability).

^{16/} Comments of CEA at 6.

^{17/} See Comments of CEA at 10, and Comments of GI at 12.

^{18/} Importantly, no entity proposes to require closed captioning capability to digital VCRs, personal video recorders and other devices that are not designed principally to receive DTV signals. Indeed, several entities, including WGBH, draw a clear distinction between the two types of devices. See Comments of WGBH at 7.

widely available as possible.^{19/}

As discussed in its initial comments, Thomson would not object to a requirement that STBs or separate DTV tuners:

- (1) Pass through, without degradation, the analog closed captioning data carried in NTSC television signals, for processing by an analog receiver's closed captioning circuitry;
- (2) Pass through, without degradation, the digital closed captioning data carried in an ATSC DTV signal, for processing by a DTV receiver's closed captioning circuitry;
- (3) Decode and output the analog closed captioning data carried in the digital signal (formatted pursuant to EIA-608) for processing by the analog receiver's closed captioning circuitry; and
- (4) Decode, in the case of its use with an HDTV display-only device, closed captioning data received in both analog and digital format.

However, Thomson strongly reiterates its and other consumer electronics entities' strong opposition to any requirement that a digital set-top converter box convert digital closed captioning data for display in analog form *where data formatted to EIA-608 is not already present*.^{20/} As Toshiba points out, "the ability to encode information into the vertical blanking interval of an NTSC signal is limited to professional equipment that compare in value to that of a small automobile."^{21/}

^{19/} See Comments of CEA 12, Comments of Toshiba at 2.

^{20/} See Comments of CEA at 12, and Comments of Toshiba at 2.

^{21/} Comments of Toshiba at 2.

VI. FEDERAL MANDATES REQUIRING DTV RECEIVERS TO PROCESS ALL PSIP DATA OR TO RELY EXCLUSIVELY ON PSIP DATA FOR V-CHIP PROGRAM BLOCKING ARE UNNECESSARY.

The concerns raised by broadcasters with regard to the importance of broadcasters' PSIP data, both to the functionality of digital closed captioning and V-chip program blocking capabilities in DTV receivers, are an example of a solution in search of a problem. In fact, Thomson's DTV receiver products (including integrated receivers and set-top converter boxes) are designed to process all PSIP data, including V-chip data,^{22/} in accordance with ATSC standards, a business decision consistent with Thomson's desire to ensure its consumers are able to full exploit the benefits of digital television.^{23/} Indeed, the highly competitive consumer electronics marketplace is the best assurance that consumers will be capable of receiving the full variety of services available to them through digital television. For this reason, the Commission should refrain from imposing these types of standards on DTV manufacturers.

^{22/} With respect to V-chip program blocking, Thomson designs its receivers to use non-PSIP data only when PSIP data is unavailable.

^{23/} However, as discussed in its comments in other important DTV-related proceedings, Thomson strongly supports NAB's position that cable systems and other multi-channel video distributors should be required to transmit broadcasters' PSIP data in its entirety as part of their carriage of DTV signals. *See, In the Matter of Carriage of the Transmissions of Digital Television Broadcast Stations*, CS Docket No. 98-120, Comments of Thomson Consumer Electronics, Inc. (October 13, 1998).

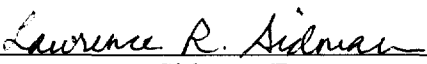
VII. CONCLUSION.

Thomson urges the Commission to adopt rules for the provision of closed captioning on DTV receivers consistent with the views expressed herein.

Respectfully submitted,

THOMSON CONSUMER ELECTRONICS, INC.

David H. Arland
Director, Government and
Public Relations, Americas
THOMSON CONSUMER ELECTRONICS, INC.
P.O. Box 1976, INH-430
Indianapolis, IN 46206-1976
(317) 587-4832


Lawrence R. Sidman, Esq.
Sara W. Morris
VERNER, LIIPFERT, BERNHARD,
MCPHERSON & HAND, CHARTERED
901 15th Street, N.W., Suite 700
Washington, D.C. 20005
(202) 371-6206

Counsel for Thomson Consumer
Electronics, Inc.

November 15, 1999